

Storm Data and Unusual Weather Phenomena - August 2013

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
IOWA, Southwest				
(IA-Z080) MONTGOMERY				
	08/01/13 20:55 CST	0		High Wind (MAX 58 kt)
	08/01/13 20:55 CST	0		
Thunderstorms developed near a stationary front in northern Nebraska early in the afternoon of August 1. The storms intensified and moved southeast through the evening and the strongest storms remained in Nebraska. However, in response to the thunderstorms to the east, strong gradient winds spread over southwest Iowa causing at least one strong wind gust.				
MONONA COUNTY --- 0.5 E ONAWA [42.03, -96.09], 0.6 ENE ONAWA MUNI ARPT [42.02, -96.09], 0.2 WNW ONAWA MUNI ARPT [42.02, -96.10], 0.2 NW ONAWA [42.03, -96.10]				
	08/11/13 19:30 CST	0		Flash Flood (due to Heavy Rain)
	08/11/13 20:00 CST	0		Source: Law Enforcement
Heavy rain caused some minor flash flooding of a few streets in the Onawa area.				
Scattered thunderstorms developed along and north of slow moving cold front during the evening of August 11. Due to the moisture and instability present, a few of the storms produced marginally severe size hail in eastern Nebraska along brief periods of heavy rain which caused isolated flash flooding in a few communities near the Missouri River.				
NEBRASKA, East				
(NE-Z011) KNOX, (NE-Z012) CEDAR, (NE-Z016) ANTELOPE, (NE-Z017) PIERCE, (NE-Z018) WAYNE, (NE-Z030) BOONE				
	08/01/13 00:00 CST	0		Drought
	08/31/13 23:59 CST	0		
The cool temperatures of July spilled over into early August across most of eastern Nebraska and western Iowa. There was appreciable rainfall in the first half of the month and this allowed for the top and subsoil moisture to remain fairly stable, but still only 55 percent of the topsoil was rated as adequate and 36 percent of the subsoil. The main agriculture impacts were seen in pastureland where browning was noted in many areas, especially in dryland farm fields where low yields were seen in hay cutting. In addition the last 13 days of August were the 7th warmest on record for Norfolk and included 9 days with highs in the 90s that contributed to the ongoing drought.				
KNOX COUNTY --- 1.2 SW WAUSA [42.49, -97.55]				
	08/01/13 13:54 CST	0		Hail (0.88 in)
	08/01/13 13:54 CST	0		Source: Trained Spotter
ANTELOPE COUNTY --- 5.8 SW CLEARWATER [42.12, -98.27]				
	08/01/13 15:19 CST	0		Hail (0.75 in)
	08/01/13 15:19 CST	0		Source: Trained Spotter
ANTELOPE COUNTY --- 1.5 SSW ELGIN EDWARDS ARPT [41.98, -98.24], 3.8 S ELGIN EDWARDS ARPT [41.95, -98.24]				
	08/01/13 15:45 CST	0		Thunderstorm Wind (EG 65 kt)
	08/01/13 15:45 CST	0		Source: Law Enforcement
Trees were shredded and pivots overturned west of Elgin. The damage path ran from north to south.				
COLFAX COUNTY --- 0.5 W LEIGH [41.70, -97.24]				
	08/01/13 16:40 CST	0		Thunderstorm Wind (EG 60 kt)
	08/01/13 16:40 CST	0		Source: Law Enforcement
Thunderstorm wind gusts estimated at around 70 mph caused considerable tree damage in the Leigh area. The fallen trees caused scattered vehicle and house damage and also knocked power out to the area.				
BOONE COUNTY --- 3.2 SSW ALBION MUNI ARPT [41.69, -98.08]				
	08/01/13 16:48 CST	0		Thunderstorm Wind (MG 62 kt)
	08/01/13 16:48 CST	0		Source: Storm Chaser

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A storm chaser measured a thunderstorm wind gust of around 70 mph.				
BOONE COUNTY --- 0.5 E ST EDWARD [41.57, -97.86]				
	08/01/13 17:25 CST		0	Thunderstorm Wind (EG 52 kt)
	08/01/13 17:25 CST		0	Source: Trained Spotter
Thunderstorm wind gusts were estimated at around 60 mph in the St. Edward area.				
DODGE COUNTY --- NORTH BEND [41.47, -96.78]				
	08/01/13 17:35 CST		0	Thunderstorm Wind (EG 52 kt)
	08/01/13 17:35 CST		0	Source: Trained Spotter
A spotter estimated that thunderstorm wind gusts approached 60 mph. Some small branches were downed in town.				
SALINE COUNTY --- SWANTON [40.38, -97.08]				
	08/01/13 19:55 CST		0	Thunderstorm Wind (EG 55 kt)
	08/01/13 19:55 CST		0	Source: Emergency Manager
Thunderstorm wind gusts estimated at over 60 mph downed several large trees across streets in Swanton which knocked the power out to around 1/2 the town.				
Thunderstorms developed near a stationary front in northern Nebraska early in the afternoon of August 1. The storms intensified and moved southeast through the evening and high levels of wind shear combined with moderate instability present to aid in a few of the storms becoming super-cellular in nature. The stronger storms produced damaging winds and very heavy rainfall, but some hail reports were also received and at least one apparent tornado occurred.				
DODGE COUNTY --- 1.1 NW FREMONT [41.46, -96.51]				
	08/06/13 06:00 CST		0	Hail (1.00 in)
	08/06/13 06:02 CST		0	Source: NWS Employee
Hail up to the size of quarters fell in northwest Fremont. Most of the hail was pea size and was very brief.				
WASHINGTON COUNTY --- 1.7 ESE BLAIR [41.54, -96.12]				
	08/06/13 06:15 CST		0	Thunderstorm Wind (EG 61 kt)
	08/06/13 06:20 CST		0	Source: Law Enforcement
The roof of a building was blown off near the Cargil plant east of Blair. In addition, several trees were reported down throughout the city of Blair.				
DODGE COUNTY --- 1.5 E FREMONT [41.45, -96.47], 2.5 SE FREMONT [41.43, -96.46], 1.1 SSE FREMONT ARPT [41.44, -96.52], 0.9 NNE FREMONT ARPT [41.46, -96.52]				
	08/06/13 07:01 CST		0	Flash Flood (due to Heavy Rain)
	08/06/13 08:01 CST		0	Source: Law Enforcement
Rainfall from heavy thunderstorms created areas of street flooding across the city of Fremont. A thunderstorm dropped about 1.80 inches in less than an hour followed by a second storm less than an hour later. This second storm dropped about 0.50 inches in less than an hour. Many intersections in town were under water.				
Thunderstorms formed during the early morning hours in northeast Nebraska along a sharp instability gradient. These storms continued to move southeast into east central Nebraska around sunrise. Steep mid level lapse rates and moderate deep layer shear were sufficient to produce isolated hail and wind damage, along with heavy rain.				
MADISON COUNTY --- 1.7 NE ENOLA [41.92, -97.46]				
	08/06/13 17:45 CST		0	Hail (1.50 in)
	08/06/13 17:48 CST		0	Source: Public
STANTON COUNTY --- 8.8 SSW STANTON [41.83, -97.29]				
	08/06/13 18:17 CST		0	Hail (0.88 in)
	08/06/13 18:19 CST		0	Source: Trained Spotter
COLFAX COUNTY --- HOWELLS [41.72, -97.00]				
	08/06/13 18:37 CST		0	Hail (1.00 in)
	08/06/13 18:39 CST		0	Source: Public

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Isolated severe thunderstorms dropped hail across portions of northeast Nebraska. The storms developed near a cold front which moved into a moderately unstable environment. Upper level wind shear was strong enough to sustain a few updrafts to produce severe size hail.

KNOX COUNTY --- 0.5 W VERDIGRE [42.60, -98.04]

08/10/13 14:30 CST	0	Hail (0.88 in)
08/10/13 14:30 CST	0	Source: Law Enforcement

KNOX COUNTY --- 1.4 N CREIGHTON [42.49, -97.88]

08/10/13 16:00 CST	0	Hail (1.00 in)
08/10/13 16:00 CST	0	Source: Public

KNOX COUNTY --- 0.5 W WAUSA [42.50, -97.54]

08/10/13 17:55 CST	0	Hail (0.88 in)
08/10/13 17:55 CST	0	Source: Trained Spotter

CEDAR COUNTY --- 8.0 NNE MAGNET [42.56, -97.43]

08/10/13 18:25 CST	0	Hail (0.75 in)
08/10/13 18:25 CST	0	Source: Law Enforcement

Isolated thunderstorms developed along a nearly stationary front in northeast Nebraska in the afternoon and evening hours of August 10th. The storms produced a few reports of hail up to 1 inch in diameter.

COLFAX COUNTY --- 3.8 SE LEIGH [41.66, -97.18]

08/11/13 17:40 CST	0	Hail (1.00 in)
08/11/13 17:40 CST	0	Source: Public

MADISON COUNTY --- 0.5 E MADISON [41.83, -97.46]

08/11/13 18:39 CST	0	Hail (1.00 in)
08/11/13 18:39 CST	0	Source: Law Enforcement

BURT COUNTY --- 2.5 NW LYONS [41.95, -96.52]

08/11/13 19:42 CST	0	Hail (0.75 in)
08/11/13 19:42 CST	0	Source: Trained Spotter

BURT COUNTY --- 0.9 NE LYONS [41.94, -96.47], 0.8 N LYONS [41.94, -96.48], 0.3 N LYONS [41.93, -96.48], 0.6 ENE LYONS [41.93, -96.47]

08/11/13 20:50 CST	0	Flash Flood (due to Heavy Rain)
08/11/13 21:20 CST	0	Source: Trained Spotter

Rainfall of 2 to 4 inches fell in a short time period in the Lyons area which caused some minor flash flooding of streets in town . The coop observer in town measured 3.83 inches of rain from this storm.

Scattered thunderstorms developed along and north of slow moving cold front during the evening of August 11. Due to the moisture and instability present, a few of the storms produced marginally severe size hail along brief periods of heavy rain.

KNOX COUNTY --- 5.0 SW WINNETOON [42.47, -98.02], 7.9 ENE VENUS [42.47, -98.15], 6.6 WSW VERDIGRE [42.55, -98.14], 2.2 S VERDIGRE [42.57, -98.03]

08/21/13 22:00 CST	0	Flash Flood (due to Heavy Rain)
08/22/13 00:00 CST	0	Source: Public

The public reported flash flooding in rural Knox County. The flooding included several county roads becoming flooded from rainfall runoff , as well as flooding of farm fields. Rainfall amounts greater than 4 inches were reported in this part of Knox County that led to the flooding.

PIERCE COUNTY --- 0.7 S PLAINVIEW MUNI ARPT [42.36, -97.80], 1.0 WSW PLAINVIEW [42.35, -97.80], 0.5 SSW PLAINVIEW [42.34, -97.78], 0.7 NNE PLAINVIEW [42.36, -97.78]

08/21/13 22:06 CST	0	Flash Flood (due to Heavy Rain)
08/22/13 00:06 CST	0	Source: Social Media

Reports of flash flooding, including significant street flooding to 1 to 2 feet deep, was reported in the Plainview area. Rainfall of 2 to 3 inches were common across northern Pierce County.

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A weak cold front from the upper Mississippi River Valley into the central High Plains provided for a focus for late afternoon thunderstorm development in a very unstable airmass. Thunderstorms initially developed from extreme southeast South Dakota into north central Nebraska. These slow moving thunderstorms then moved and developed southeast into northeast Nebraska during the evening on the 21st, lasting into the early morning hours of the 22nd before dissipating. The slow movement of the thunderstorms led to significant rainfall and localized flash flooding.

(NE-Z034) BURT, (NE-Z044) DODGE, (NE-Z045) WASHINGTON, (NE-Z051) SAUNDERS, (NE-Z052) DOUGLAS, (NE-Z053) SARPY, (NE-Z066) LANCASTER, (NE-Z067) CASS, (NE-Z068) OTOE, (NE-Z089) GAGE, (NE-Z090) JOHNSON, (NE-Z091) NEMAHA, (NE-Z092) PAWNEE, (NE-Z093) RICHARDSON

08/30/13 12:00 CST	0	Heat
08/30/13 17:00 CST	0	

A stagnant upper level high pressure system brought an extended period of very hot temperatures to eastern Nebraska the last week of August. Heat index values peaked in the 104 to 109 degree range on August 30th as temperatures approached 100 degrees to go along with dew point temperatures in the upper 60s to mid 70s. Even though other days during the last week of August had highs well into the 90s, dew point readings were lower which generally kept heat index values at or below 100 degrees. Lows during this stretch were mostly in the upper 60s to mid 70s, and a few warmest minimum temperatures were tied or broken to go along with a few record highs tied or broken.

THURSTON COUNTY --- THURSTON [42.18, -96.70]

08/31/13 23:53 CST	0	Thunderstorm Wind (EG 55 kt)
08/31/13 23:53 CST	0	Source: Fire Department/Rescue

Thunderstorm wind gusts estimated at over 60 mph downed trees in town and also caused some roof damage.

Thunderstorms developed along and behind a cold front in northeast Nebraska late in the evening of August 31. The front was driven southeast by a relatively strong upper level trough dropping out of Canada toward the Great Lakes region. Other thunderstorms developed in the early morning hours of Sept 1 east of Beatrice. High amounts of instability present allowed a few of the storms to produce isolated wind damage in southeast Nebraska and also from a line that tracked southeast along the Missouri River from northeast Nebraska.